CLAIMS:

What is claimed is:

1.   A method for routing data packets to multiple partitions within a single end node, comprising:
     assigning a range of local identification addresses (LIDs) to a channel adapter port in an end node; and
     assigning bits within the local identification addresses to specify which of several partitions within the end node is being addressed.

2.   The method of claim 1, wherein the bits are lower order bits.

3.   The method according to claim 1, wherein the channel adapter port is connected to a system area network.

4.   The method according to claim 1, wherein:
     the network contains two raised to the N power end nodes, switches, and routers; and
     the number of bits in a local identification address equals N.

5.   The method according to claim 2, wherein the lower order bits assigned to partitions are designated by a local identification mask control (LMC) field.

6.   The method according to claim 5, wherein the local identification mask control can be any number of bits.

7.   The method according to claim 5, wherein a number of

Docket No. AUS9-2000-0628-US1

lower order bits assigned to addressing within a port is up to two raised to the local identification mask control power.

8. The method according to claim 7, wherein the different local identification addresses of a port identify different partitions within the end node.

9. A computer program product in a computer readable medium for use in a data process system for routing data packets to multiple partitions within a single end node, the computer program product comprising:

    instructions for assigning a local identification address to a channel adapter port in an end node; and

    instructions for assigning bits within the local identification address to a specific partition within the end node.

10. The computer program product of claim 9, wherein the bits are lower order bits.

11. The computer program product according to claim 9, further comprising instructions for connecting the channel adapter port to a system area network.

12. The computer program product according to claim 9, wherein:

    if the network contains two raised to the N power end nodes, switches, and routers;

    the number of bits in a local identification address equals N.

13. The computer program product according to claim 10, wherein the lower order bits assigned to partitions are designated by a local identification mask control (LMC) field.

14. The computer program product according to claim 13, wherein the local identification mask control can be any number of bits.

15. The computer program product according to claim 13, wherein the number of lower order bits assigned to addressing within a port is up to two raised to the local identification mask control power.

16. The computer program product according to claim 15, wherein the different local identification addresses of a port identify different partitions within the end node.

17. A system for routing data packets to multiple partitions within a single end node, comprising:

means for assigning a local identification address (LID) to a channel adapter port in a network end node; and

means for assigning lower order bits within the local identification addresses to a specific partition within the end node.

18. The system according to claim 17, wherein the channel adapter port is connected to a system area network.

19. The method according to claim 17, wherein:

Docket No. AUS9-2000-0628-US1

the network contains two raised to the N power end nodes, switches, and routers; and

the number of bits in a local identification address equals N.

20. The system according to claim 17, wherein the lower order bits assigned to partitions are designated by a local identification mask control (LMC) field.

21. The method according to claim 20, wherein the LMC can be any number of bits.

22. The system according to claim 20, wherein the number of lower order bits assign to addressing within a port is up to two raised to the local identification mask control power.

23. The system according to claim 22, wherein the different local identifier addresses of a port identify different partitions within the end node.